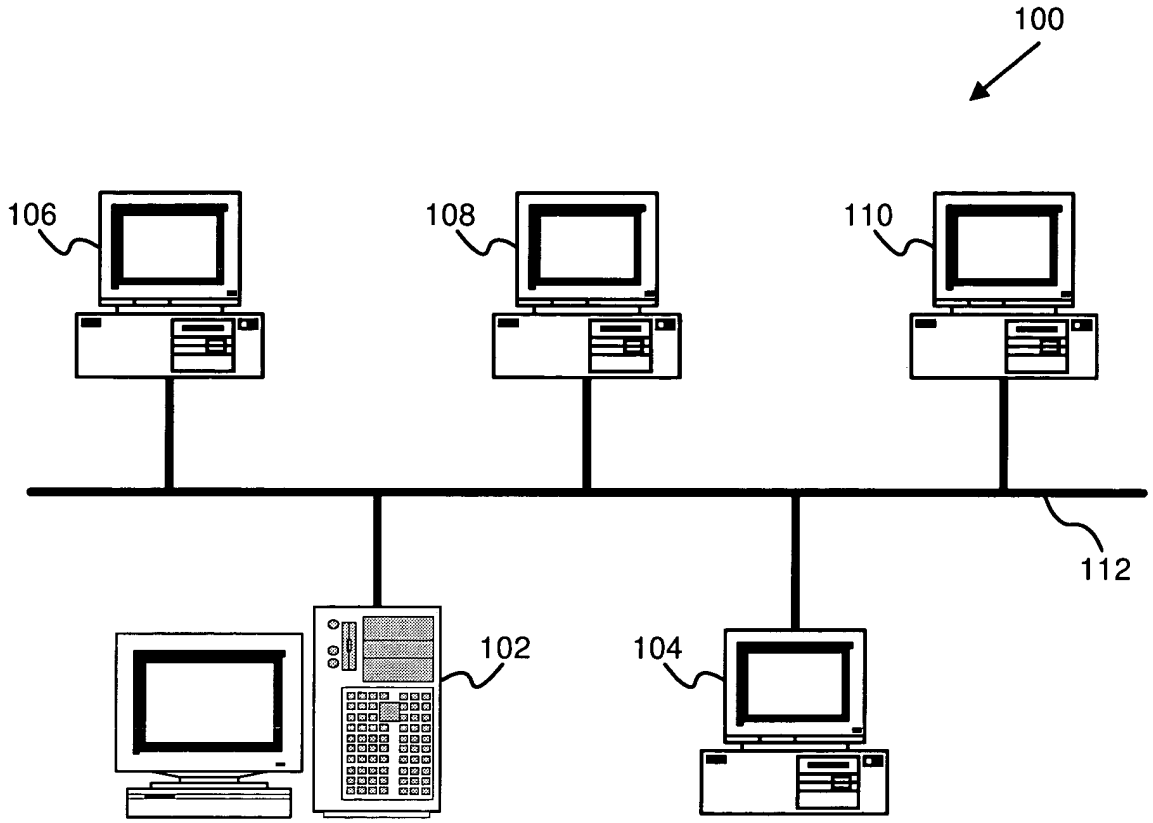


FIG. 1

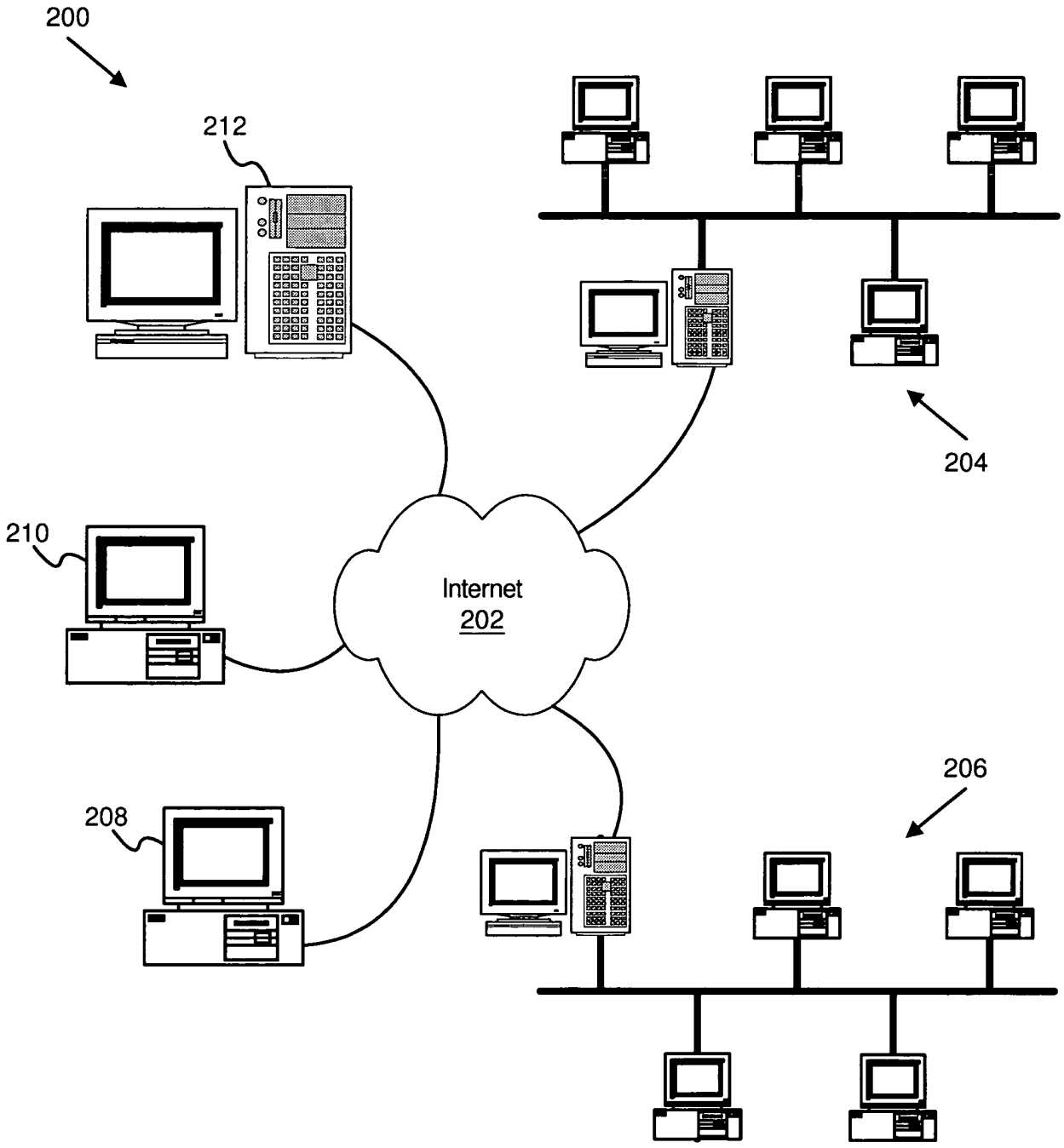


FIG. 2

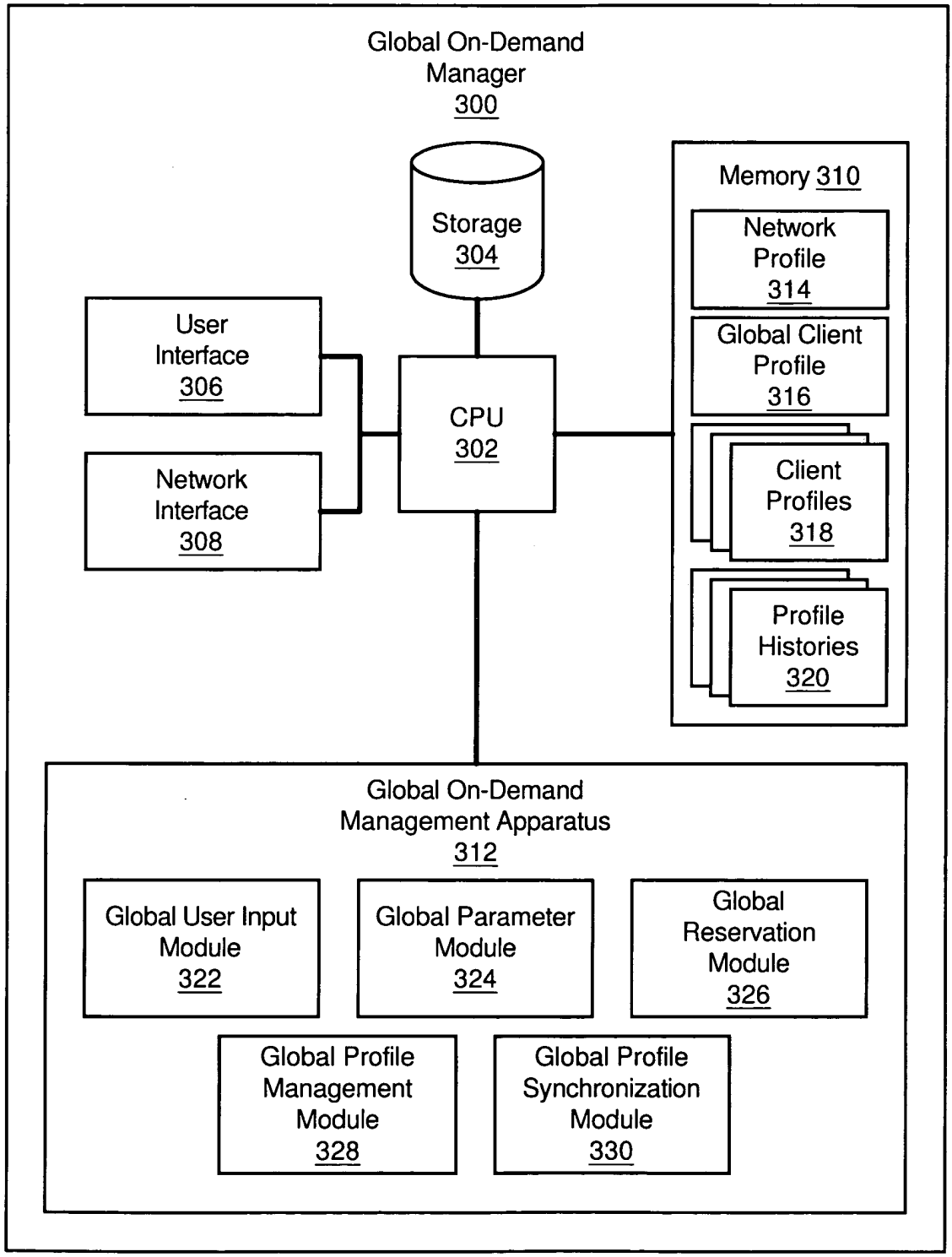
Global On-Demand Manager 300
Storage 304
Memory 310
Network Profile 314
Global Client Profile 316
Client Profiles 318
Profile Histories 320
User Interface 306
Network Interface 308
CPU 302
Global On-Demand Management Apparatus 312
Global User Input Module 322
Global Parameter Module 324
Global Reservation Module 326
Global Profile Management Module 328
Global Profile Synchronization Module 330

FIG. 3

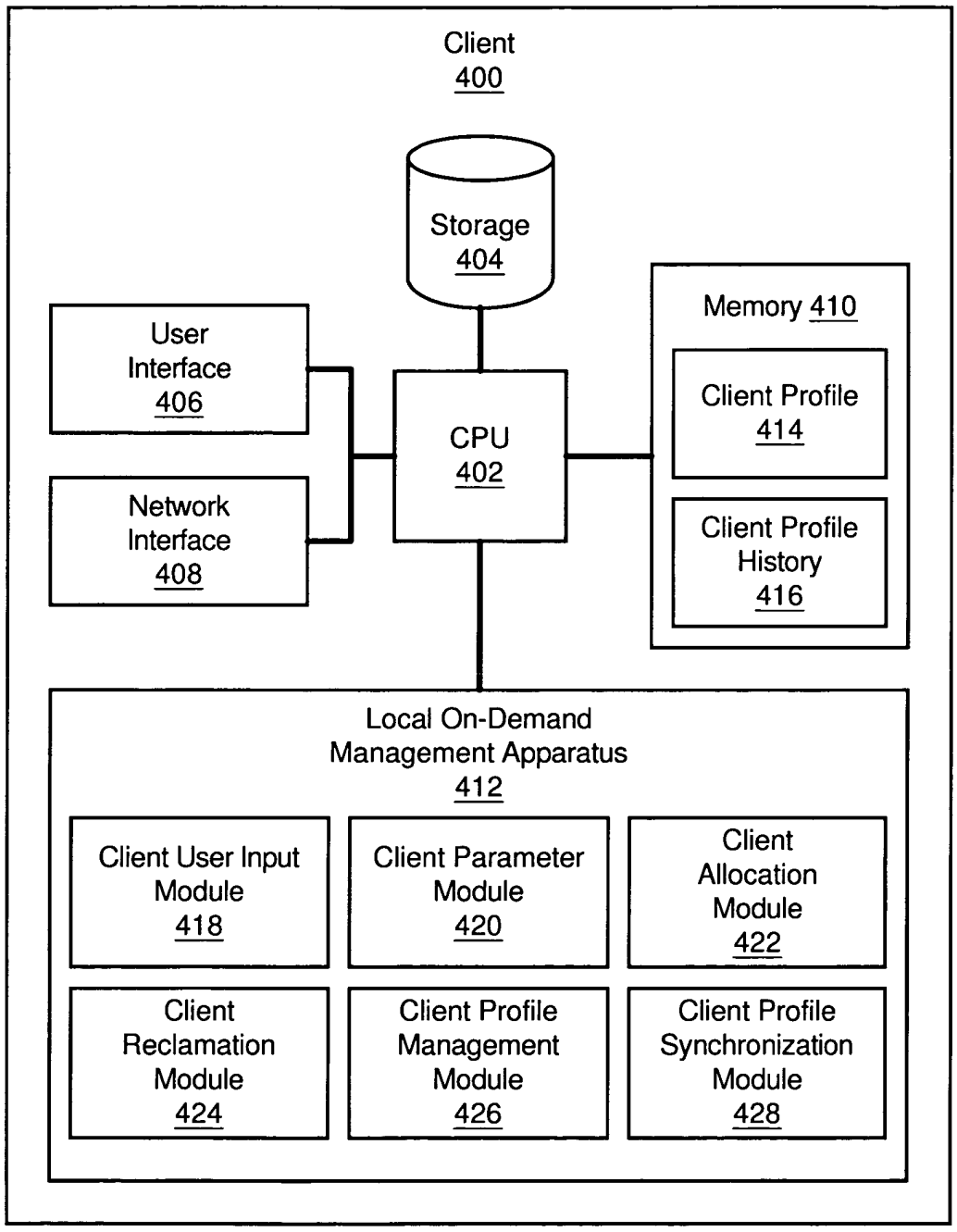
Client
400
Storage
404
Memory 410
User
Interface
406
CPU
402
Client Profile
414
Network
Interface
408
Client Profile
History
416
Local On-Demand
Management Apparatus
412
Client User Input
Module
418
Client Parameter
Module
420
Client
Allocation
Module
422
Client
Reclamation
Module
424
Client Profile
Management
Module
426
Client Profile
Synchronization
Module
428

FIG. 4

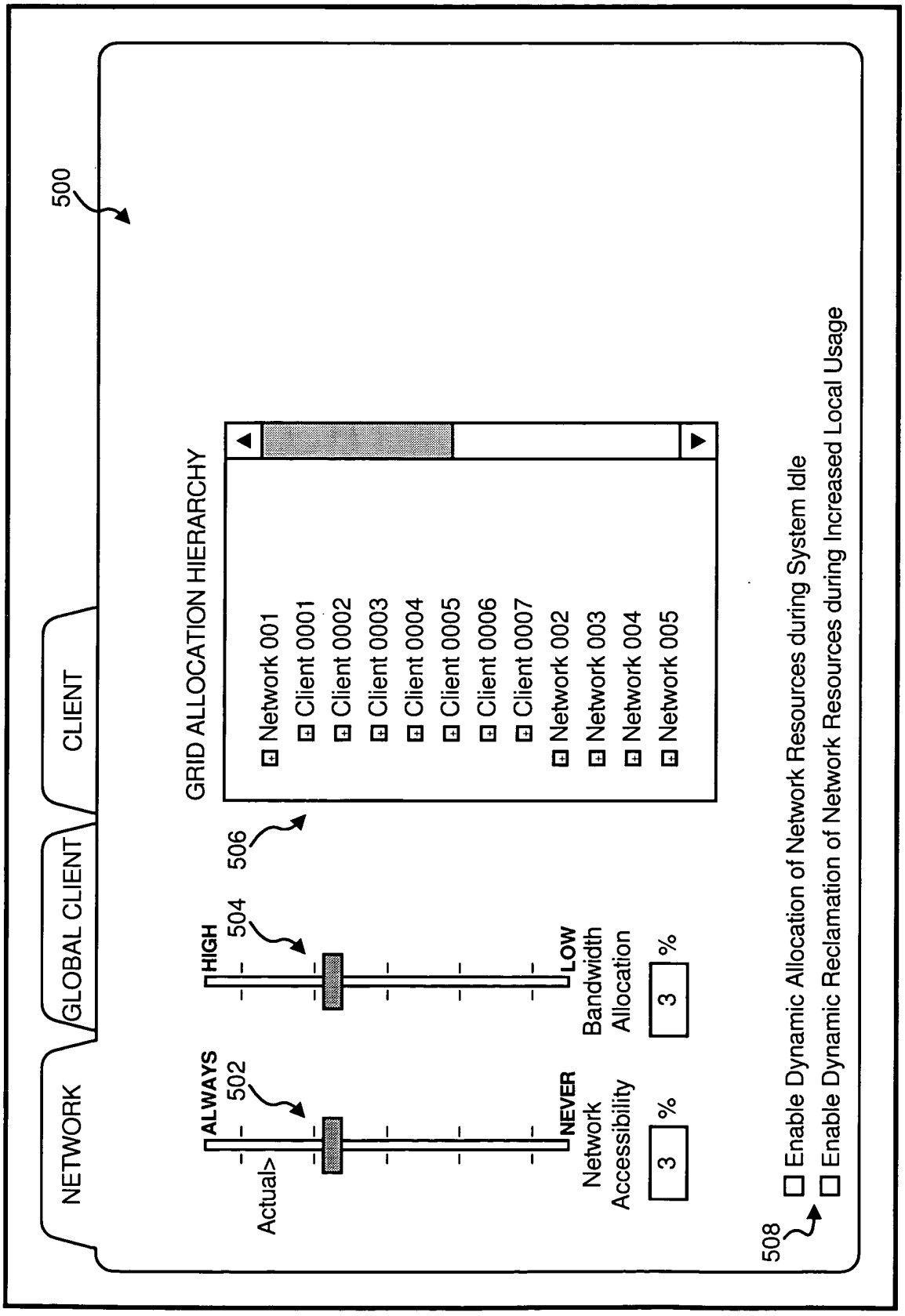
500
NETWORK
GLOBAL CLIENT
CLIENT
GRID ALLOCATION HIERARCHY
506
Network 001
Client 0001
Client 0002
Client 0003
Client 0004
Client 0005
Client 0006
Client 0007
Network 002
Network 003
Network 004
Network 005
504
HIGH
LOW
Bandwidth Allocation
3
%
502
ALWAYS
NEVER
Actual>
Network Accessibility
3
%
508
Enable Dynamic Allocation of Network Resources during System Idle
Enable Dynamic Reclamation of Network Resources during Increased Local Usage

FIG. 5

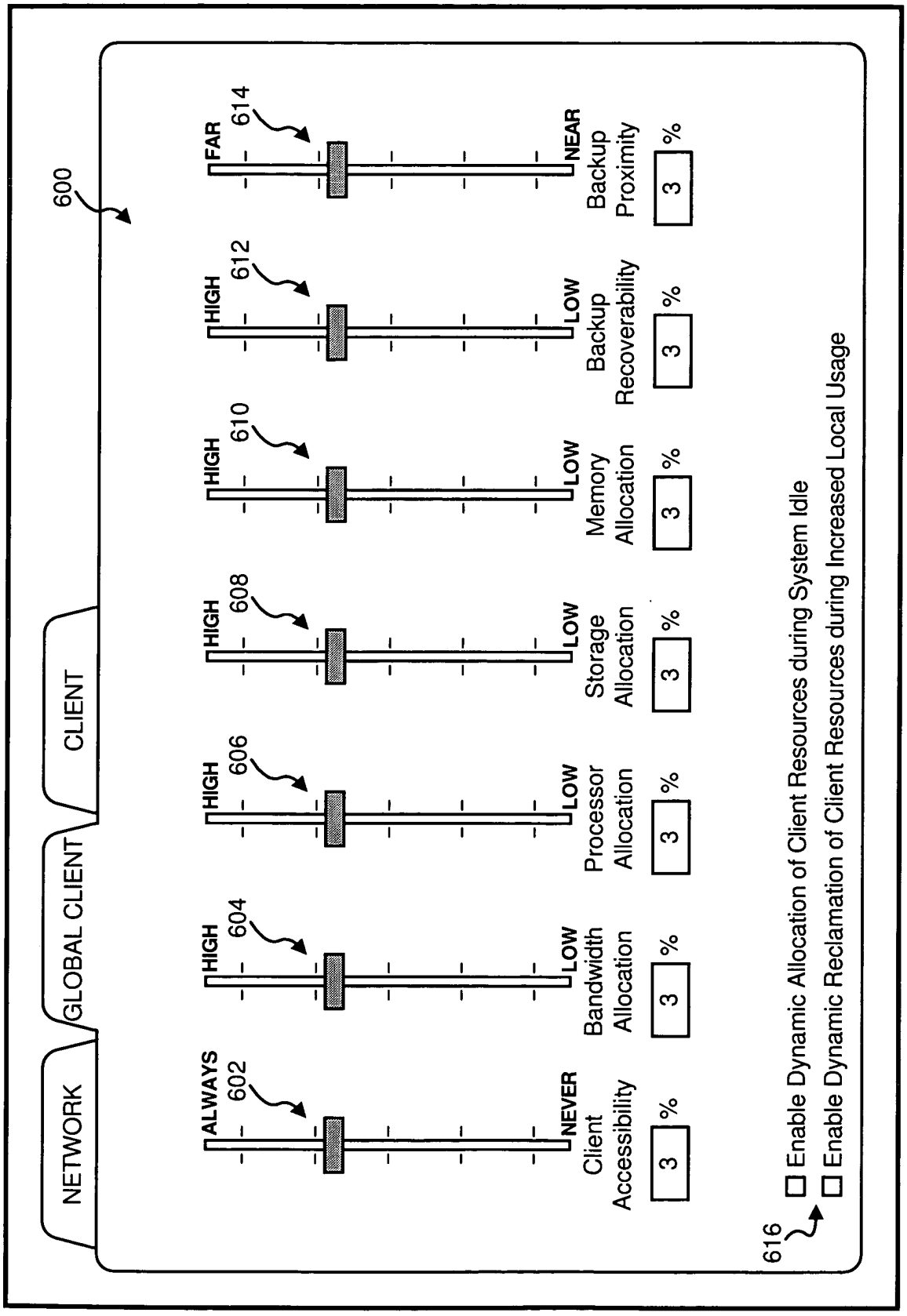
600
NETWORK
GLOBAL CLIENT
CLIENT
ALWAYS
602
NEVER
Client Accessibility
3 %
HIGH
604
LOW
Bandwidth Allocation
3 %
HIGH
606
LOW
Processor Allocation
3 %
HIGH
608
LOW
Storage Allocation
3 %
HIGH
610
LOW
Memory Allocation
3 %
HIGH
612
LOW
Backup Recoverability
3 %
FAR
614
NEAR
Backup Proximity
3 %
616
Enable Dynamic Allocation of Client Resources during System Idle
Enable Dynamic Reclamation of Client Resources during Increased Local Usage

FIG. 6

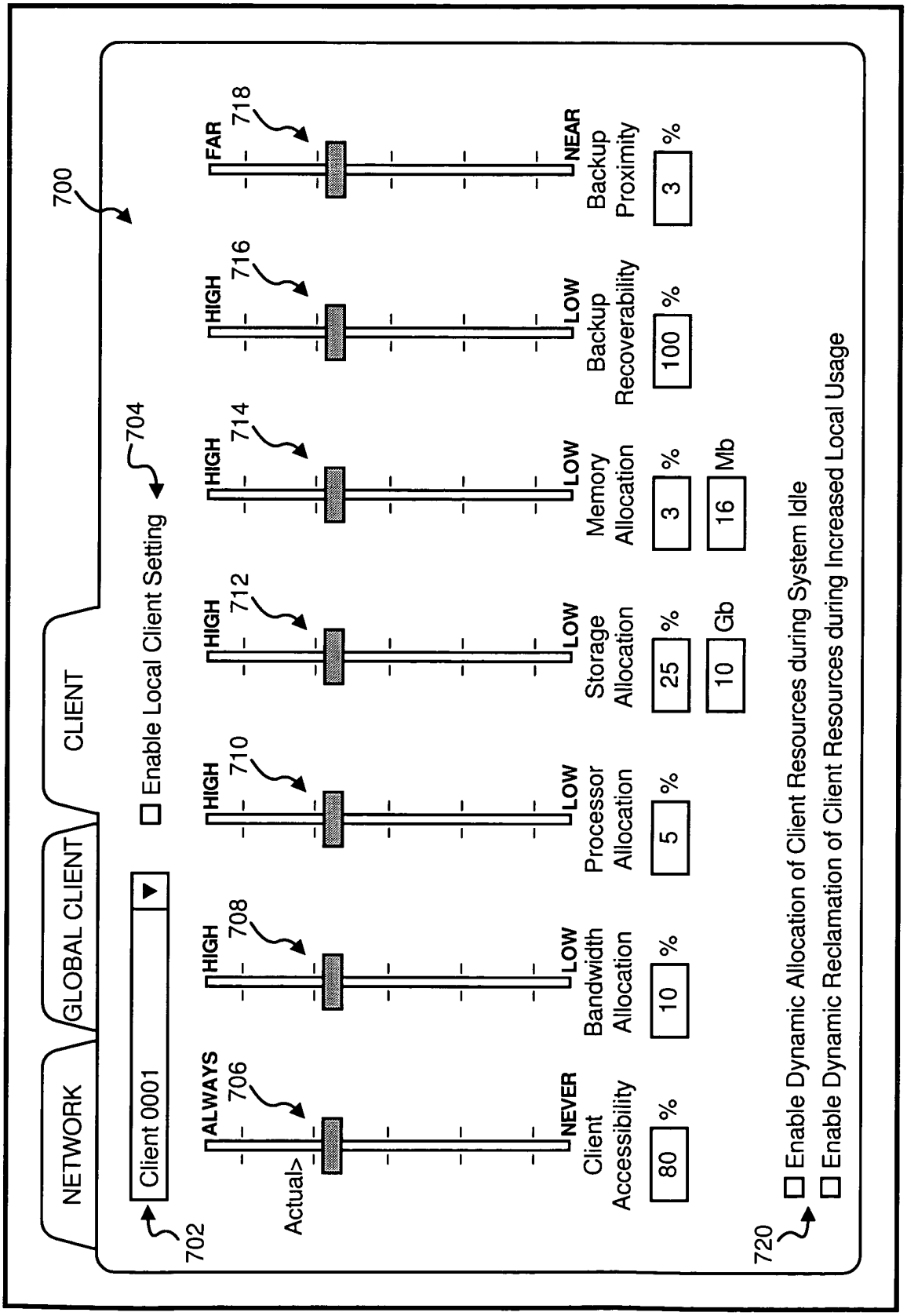
NETWORK
GLOBAL CLIENT
CLIENT
700
Client 0001
702
Enable Local Client Setting
704
Actual>
ALWAYS
706
NEVER
Client Accessibility
80 %
HIGH
708
LOW
Bandwidth Allocation
10 %
HIGH
710
LOW
Processor Allocation
5 %
HIGH
712
LOW
Storage Allocation
25 %
10 Gb
HIGH
714
LOW
Memory Allocation
3 %
16 Mb
HIGH
716
LOW
Backup Recoverability
100 %
FAR
718
NEAR
Backup Proximity
3 %
720
Enable Dynamic Allocation of Client Resources during System Idle
Enable Dynamic Reclamation of Client Resources during Increased Local Usage

FIG. 7

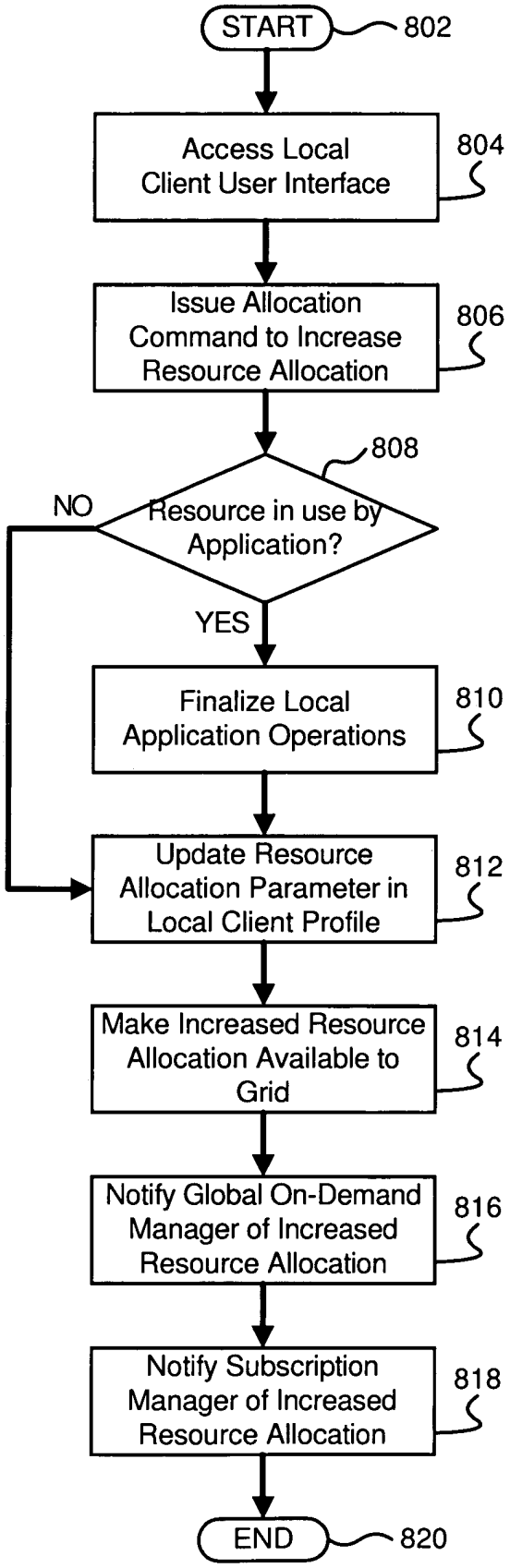
START
802
800
Access Local Client User Interface
804
Issue Allocation Command to Increase Resource Allocation
806
808
Resource in use by Application?
NO
YES
Finalize Local Application Operations
810
Update Resource Allocation Parameter in Local Client Profile
812
Make Increased Resource Allocation Available to Grid
814
Notify Global On-Demand Manager of Increased Resource Allocation
816
Notify Subscription Manager of Increased Resource Allocation
818
END
820

FIG. 8

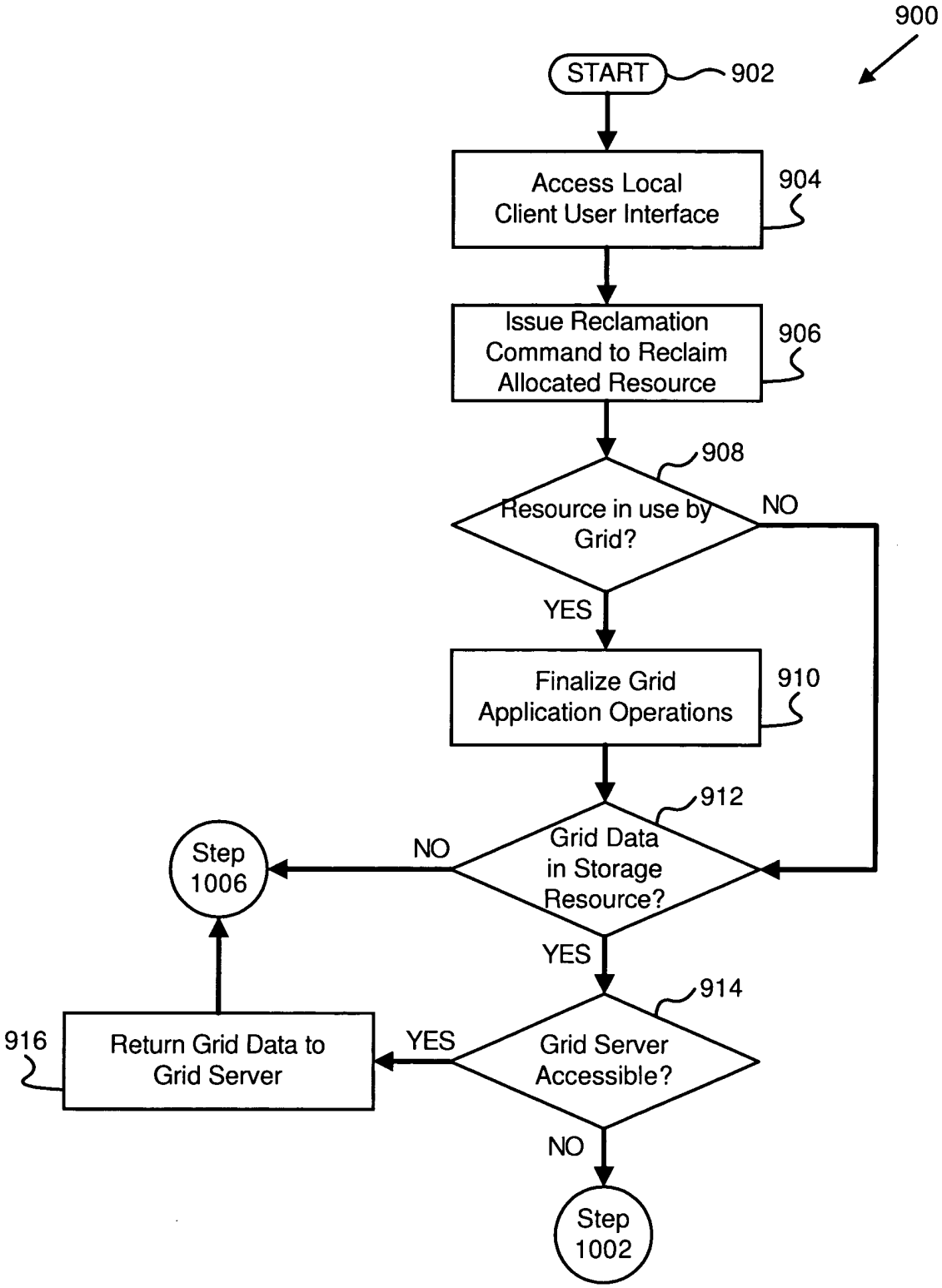
900
START
902
Access Local Client User Interface
904
Issue Reclamation Command to Reclaim Allocated Resource
906
908
Resource in use by Grid?
NO
YES
Finalize Grid Application Operations
910
912
Grid Data in Storage Resource?
NO
Step 1006
YES
914
Grid Server Accessible?
YES
916
Return Grid Data to Grid Server
NO
Step 1002

FIG. 9

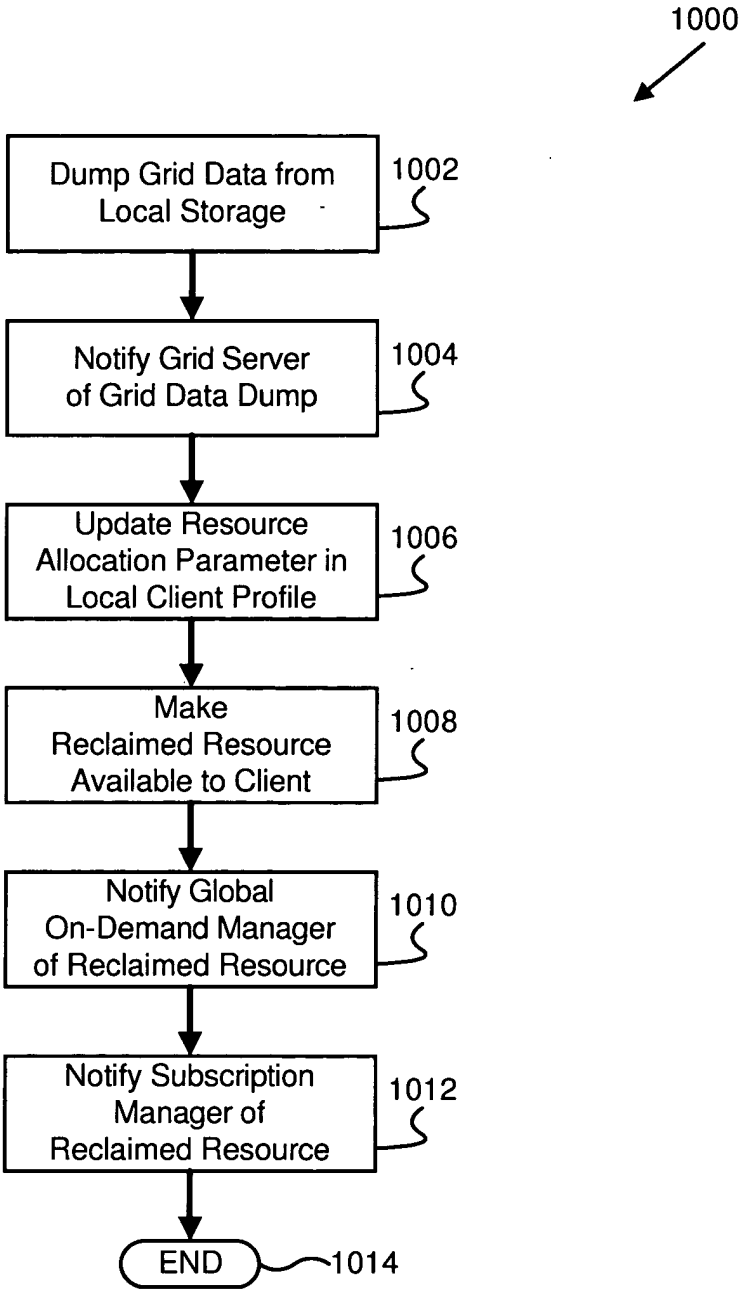
1000
Dump Grid Data from Local Storage
1002
Notify Grid Server of Grid Data Dump
1004
Update Resource Allocation Parameter in Local Client Profile
1006
Make Reclaimed Resource Available to Client
1008
Notify Global On-Demand Manager of Reclaimed Resource
1010
Notify Subscription Manager of Reclaimed Resource
1012
END
1014

FIG. 10